



CONFIDENTIAL  
CENTRAL INTELLIGENCE AGENCY

- 2 -

6. A total of 25 transformers, each with an output of 1,500 - 2,000 amperes, have been installed at the Voroshilov factory to facilitate the use of electric welders.

#### New Motor Oil

7. Fluoritine, a new type of motor oil, is being manufactured in considerable quantities at the oil plant of the Vladivostok Aircraft Factory under the direction of the Civil Air Fleet.
8. Fluoritine, which combines the stability of a mineral oil with the superior lubricating quality of a vegetable oil, is comparatively easy to manufacture, as it is obtained by treating castor oil with a simple (sic) heating process.\*\*
9. In a test, fluoritine maintained its jelly-like state after eleven hours at temperatures from -38° to -40° centigrade, while ordinary machine oils and castor oil were completely frozen after five hours at these temperatures. Fluoritine also can be stored indefinitely without any apparent change in its properties.
10. Fluoritine is mixed with ordinary lubricating oils. When the fluoritine content of the lubricating oil is two percent, the frictional loss in the engine is reduced to four-fifths of the frictional loss incurred when ordinary lubricating oils are used. The addition of fluoritine also increases the life of the lubricating oil in the motor and lowers the freezing temperature of the oil. In experiments conducted at the Vladivostok Aircraft Factory, it was found that, when fluoritine was added to ordinary lubricating oil in an automobile engine, the life of the oil was increased between 1,350 and 2,500 kilometers. In winter, automobiles with fluoritine added to the motor oil would turn over immediately no matter how long the vehicle was left in the open at temperatures from -10° to -20° centigrade.
11. In June 1947, the production of fluoritine at the Vladivostok Aircraft Factory had reached forty metric tons per months.

25X1A6a

Comment: While the welding technique described is not new in the United States, it is significant that the USSR has now "invented" or adopted this method, which represents a definite advance in technology.

25X1A6a

Comment: The simplicity of the process is doubted. However, the exact process is not known.

CONFIDENTIAL

CONFIDENTIAL